

IN THE CLAIMS:

Please cancel Claims 30-39, 46-61 and 63-64, without prejudice or disclaimer of the subject matter presented therein.

Please add new Claims 65-83, as indicated below. The following is a complete listing of claims and replaces all prior versions and listings of claims in the present application:

1-61. (Canceled).

62. (Previously presented) An apparatus for fingerprinting an audio waveform, comprising:

a memory operable to store a codebook which represents a multivariate vector of one or more spectral features with a corresponding one of a plurality of codes; and
a processor operable to divide the audio waveform into a plurality of bins, compute one or more spectral features for each bin, and generate a fingerprint representing the audio waveform with a string of codes from the codebook based on the computed one or more spectral features for each bin.

63-64. (Canceled).

65. (New) The apparatus of claim 62, wherein the string of codes are aligned in a time series.

66. (New) The apparatus of claim 62 wherein the processor is further operable to compress the string of codes to form a compressed string of codes.

67. (New) The apparatus of claim 62 wherein each code in the string of codes is temporally aligned with the audio waveform such that the position of a code within the string corresponds to a time period of the audio waveform.

68. (New) The apparatus of claim 62, wherein the processor is further operable to compress the string of codes such that temporal alignment between the string of codes and the audio waveform is maintained.

69. (New) The apparatus of claim 62 wherein each code is a hash code.

70. (New) The apparatus of claim 62, wherein the fingerprint is a unique identifier.

71. (New) The apparatus of claim 62, wherein the fingerprint is a unique audio signature.

72. (New) The apparatus of claim 62, wherein the processor is further operable to compute the one or more spectral features for a first group of data points within each

bin, shift one or more data points within each bin, and compute the one or more spectral features for a second group of data points within each bin.

73. (New) The apparatus of claim 62, wherein the codebook is predefined prior to representing the audio waveform with the string of codes from the codebook.

74. (New) The apparatus of claim 62, wherein the processor is further operable to generate the fingerprint at a given time within the audio waveform.

75. (New) The apparatus of claim 62, wherein the processor is further operable to query a database of audio files using the fingerprint.

76. (New) The apparatus of claim 62, wherein the processor is further operable to query a database of pre-computed audio signatures.

77. (New) The apparatus of claim 76, wherein the pre-computed audio signatures correspond respectively to a plurality of audio files.

78. (New) The apparatus of claim 72, wherein the processor is further operable to receive at least one attribute associated with the fingerprint.

79. (New) The apparatus of claim 72, wherein the processor is further operable to receive at least one attribute, wherein the at least one attribute is tagged to an audio file.

80. (New) The apparatus of claim 72, wherein the processor is further operable to receive a customized playlist based on the fingerprint.

81. (New) The apparatus of claim 80, wherein the customized playlist is further based on a predetermined set of user preferences.

82. (New) The apparatus of claim 62, wherein the processor is further operable to receive at least one feature value based on the fingerprint.

83. (New) The apparatus of claim 82, wherein the at least one feature value is at least one of an emotional quality vector value, a vocal vector value, a sound quality vector values, a situational quality vector value, an ensemble vector value, a genre vector value, and an instrument vector value.